MECHANICAL DATA SHEET: VESSEL

PLANT ITEM No.
24590-LAB-MV-RLD-VSL-00165

Project:	***RPP-WTP***	P&ID	***24590-LAB-M6-RLD-P0001***
Project No:	***24590***	Process Data Sheet:	***N/A***
Project Site:	***Hanford***	Vessel Drawing	***24590-LAB-MV-RLD-P0003***
Description:	***Hot Cell Drain Collection Vessel***		

ISSUED BY RPP-WTP PDC

Reference Data

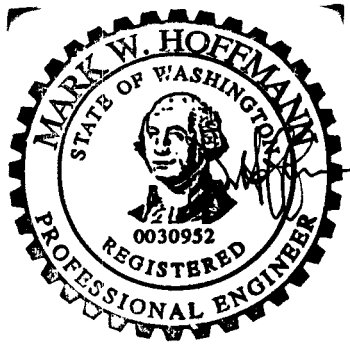
Charge Vessels (Tag Numbers)	***None***
Pulsejet Mixers / Agitators (Tag Numbers)	***None***
RFDs/Pumps (Tag Numbers)	***None***

Design Data

Quality Level	***QL-2***	Fabrication Specs	***24590-WTP-3PS-MV00-TP001***		
Seismic Category	***SC-III***	Design Code	***ASME Sec VIII Div 1***		
Service/Contents	***Radioactive Liquid Drain***	Code Stamp	***Yes***		
Design Specific Gravity	***1.02***	NB Registration	***Yes***		
Maximum Operating Volume gal	***6615 (Note 5)*** 1	Weights (lbs)	Empty	Operating	Test
Total Volume gal	***9100 (Note 5)*** 1	Estimated	***21185***	***75014***	***97966***
		Actual **			

Inside Diameter	inch	***192***			Wind Design	***Not Required***	
Length/Height (TL-TL)**	inch	***27***			Snow Design	***Not Required***	
		Vessel Operating	Vessel Design	Coil/Jacket Design	Seismic Design	***24590-WTP-3PS-FB01-T0001 & 24590-WTP-3PS-MV00-TP002***	
Internal Pressure	psig	***0***	***15***	***N/A***	Seismic Base Moment **	ft*lb	
External Pressure	psig	***0.15***	***7***	***N/A***	Postweld Heat Treatment	***Not Required***	
Temperature	°F	***78***	***240***	***N/A***	Corrosion Allowance	Inch	***0.04***
Min. Design Metal Temp	°F	***-20***			Hydrostatic Test Pressure **	psig	

Note: Please note that source, special nuclear and byproduct materials, as defined in the Atomic Energy Act of 1954 (AEA), are regulated at the U.S. Department of Energy (DOE) facilities exclusively by DOE acting pursuant to its AEA authority. DOE asserts, that pursuant to the AEA, it has sole and exclusive responsibility and authority to regulate source, special nuclear, and byproduct materials at DOE-owned nuclear facilities. Information contained herein on radionuclides is provided for process description purposes only.



3/28/05

EXPIRES 12/10/06

This Bound Document Contains a total of 2 sheets.

REV	DATE	REASON FOR REVISION	PREPARER	CHECKER	REVIEWER	APPROVER
1	3/28/05	Issued for Permitting Use				
0	3/1/04	Issued for Permitting Use	K. Brightman	M, Arulampalam	C. Slater	M. Hoffmann

R10523240

	MECHANICAL DATA SHEET: VESSEL	PLANT ITEM No. 24590-LAB-MV-RLD-VSL-00165

Materials of Construction

Component	Material	Minimum Thickness / Size	Containment
Top Head	***UNS N08367***	***See Drawing***	***Auxiliary***
Shell	***UNS N08367***	***See Drawing***	***Primary***
Bottom Head	***UNS N08367***	***See Drawing***	***Primary***
Support (Skirt)	***SA-240-304 (0.030% Carbon Max)***	**	***N/A***
Jacket/Coils/Half-Pipe Jacket	***N/A***	***N/A***	***N/A***
Internals	***UNS N08367***	***See Drawing***	***Secondary***
Pipe	***UNS N08367/ N06022/N10276, Note 4*** 1	***See Drawing***	***Note-1***
Forgings/ Bar stock	***UNS N08367***	***See Drawing***	***Note-1 for Nozzle Necks***
Bolting/Gaskets	***None***	***N/A***	***N/A***

Miscellaneous Data

Orientation	***Vertical***	Support Type	***Skirt***
Insulation Function	***Not Applicable***	Insulation Material	***Not Applicable***
Insulation Thickness (inch)	***Not Applicable***	Weld Surface Finish	***De-scaled as laid***

Remarks

*** To be confirmed by Seller*

Note 1: Nozzle necks below maximum operating level are primary, others auxiliary.

Note 2: Design life is 40 years

Note 3: Radiography 100% required on the primary confinement welds. 1

Note 4: Material of construction for nozzle NO. 3 and the dip pipe shall be alloy UNS N06022. 1

Note 5: Vessel volumes are approximates and do not account for manufacturing tolerances, nozzles, and displacement of internals.

Note 6: Quality level and seismic category designations on this datasheet reflect requirements beyond those stipulated by the vessel safety function

Note 7: Contents of this document are Dangerous Waste Permit Affecting.